

## GENERAL NOTES

## NIGHTHAWKS NESTING ON A CITY ROOF.

June 21, 1915, my attention was arrested by the peculiar actions of a pair of nighthawks as I was walking, in the early evening, down the principal street in the city of Nashua, N. H. The birds were persistently hanging about the roof of a certain flat-topped building, occasionally making a headlong dive and failing to reappear for several minutes. Then up they would sail again into the air, to resume their hawking. I became convinced that the birds were breeding there, and the next day made an investigation. Hardly had I lifted off the skylight and poked my head above the level of the roof, when one of the birds, whose white throat-patch and white tail-band proved it to be the male, fell fluttering a few feet away, apparently desperately hurt,—an old trick with the ground nesting birds. Careful search at last discovered two tiny young, completely covered with mottled gray and white down. There was no attempt at a nest. The flat roof was covered with tar and pebbles, and the eggs had been deposited directly upon these. So remarkable was the protective coloration that the young were wholly invisible except on close scrutiny. In fact, had I not been looking sharply, I might have stepped upon them unawares. The mottling exactly simulated the pebbles, or the granite rocks on which these birds ordinarily nest in pastures. The mottling extended even to the tips of the bills.

Here is a bird that has taken to modern improvements. A balustrade surrounded the roof, making it impossible for the young to fall. High up in the air, in the midst of the crowded city, safe from hawks, owls, cats and other predatory creatures, the nighthawk rears her young in perfect security.

Obliged to leave the city, I was unable to follow up the family history. This year (1916), however, the birds again nested on the same roof. June 2 I found two eggs, mottled very much like the young birds, and invisible except at close range. Both parent birds were on the roof, the female on the eggs while the male, by desperate fluttering, vainly sought to divert us from his treasures. Nine days later the eggs were seen to be in an advanced state of incubation. June 17, I found two feeble young, evidently just hatched. Long continued rains had soaked the roof, and it was wet underneath the young birds, but they were dry and warm under their father's protecting wings. And here I wish to offer a curious observation. While I invariably found the female on the eggs, I never found her in the daytime on the young. Always it

was the male. An ornithological friend who has studied the nesting of the nighthawk assures me that the male broods the young by day and the female by night. Certain it is that my experience goes to prove the truth of the first part of his contention.

June 24 the young were found to have grown considerably. The pin feathers were well out. June 27 they were much larger and had developed mottled feathers over their bodies. They squatted perfectly motionless, with closed eyes, while the male did his best to draw me away. Two days later a change had come over the young birds. They no longer squatted motionless, but watched my approach with bright eyes and suddenly, with outstretched wings, wide open mouths and fierce hissings, rushed at me, evidently warning me to keep my distance. The gape of the mouth was prodigious and gave an excellent illustration of the bird's natural fly-trap as he sweeps the atmosphere for flying insects. Finding intimidation vain, the little fellows raised their wings and ran swiftly across the roof. The wing spread was marvelous,—out of all proportion to the size of the body, and marked the bird as an aviator of the very first rank. The body measured four inches, but the wing spread was fully twelve inches. As the bird ran, with spread wings, elevated at a slight angle, the resemblance to an aeroplane skimming along the ground and about to rise was most striking.

I was obliged to be absent from the city for a week, and when I returned, July 8, the birds had flown. I cannot be sure of the exact day of the laying of the eggs or the flight of the birds, but the entire interval between must have been pretty close to thirty-six days.

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#### INCUBATION PERIOD OF KILLDEER,

May 25, 1916, I had the pleasure of seeing for the first time the Killdeer's nest and eggs, through the courtesy of Mr. Charles S. Ludlow, local weather reporter, who for several years has collaborated with me in reporting bird migration and taking the Bird Census. I have seen the downy young just able to run, once, many years ago. The nest is about a mile north of Red Cloud, in a fallow field that was sown last year broad-cast to cane, on a barren knoll, with absolutely no protection but that of innocence, which may be greater than we think. The dirt is scooped out the size of my hand and is inlaid with thin, flat scraps of magnesian sand shale averaging an inch long. While a few dead stems lie with the stones, there is no appearance of design in their presence.